

REMARKS

Claims 80, 85, 89, 91, 96, 100, 102, and 103 have been amended. Claims 102 and 103 were amended to correct a typographical error. Support for the amendments can be found throughout the specification, for example, at pages 2-5. Page 1 of the specification has also been amended. No new matter has been added by the amendments. Claims 1-5, 7, 8, 12, 13, 16, 17, 22, 25, 26, 80-94, 96, 97, and 99-103 are pending in the application.

Applicants thank the Examiner for withdrawing previous rejections under 35 U.S.C. § 112, second paragraph. Applicants thank the Examiner for withdrawing the objection to the claims set forth in paragraph 9¹ of the previous Office Action mailed 22 November 2004. The Examiner has also indicated that rejection under 35 U.S.C. § 102(b) “as set forth in paragraph 8 of the previous Office Action mailed 22 November 2004 is withdrawn.” Applicants thank the Examiner for withdrawing this rejection.

The Examiner's remarks in the last Office Action are addressed below.

CLAIM REJECTIONS

Rejection of claims under 35. U.S.C. §112, second paragraph

The Examiner has rejected claims 96 and 97 for “failing to particularly point out and distinctly claim the subject matter which applicants regards as the invention.” See page 4 of the Office Action. Applicants have amended claim 96 to address this rejection. Thus, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 96 and its dependent claim under 35 U.S.C. §112, second paragraph.

Rejection of claims under 35 U.S.C. §102(b) over Hoorspool et al.

The Examiner has rejected claims 1-5, 7, 8, 12, 13, 16, 17, 22, 25, 26, 80-90 and 102 “under 35 U.S.C. 102(b) as being anticipated by Hoorspool *et al.*” (“Hoorspool”). See page 2 of the Office Action. Claims 1, 22, 80 and 102 are independent.

¹ The Examiner references paragraph 5 of the previous Office Action mailed 22 November 2004 as containing the objection to the claims. We believe that the Examiner intended to reference paragraph 9 of the previous Office Action mailed 22 November 2004. If we have misunderstood the Examiner's intention, we invite the Examiner to clarify this.

The Examiner contends that Hoorspool discloses “the synthesis of the compound 5-phenoxy-2,4-pentadienoic acid” and that “[t]his compound corresponds to compound of formula (I) in which A is unsubstituted phenyl and $Y^1 = O$, $Y^2 =$ a bond. Hoorspool further discloses (ibid) that this compound is precipitated from aqueous HCL solution and recrystallized from alcohol solution. The Examiner considers both solutions to be pharmaceutical compositions with the solvents corresponding to pharmaceutically acceptable carriers.” See page 3 of the Office Action.

Although Hoorspool does describe 5-phenoxy-2,4-pentadienoic acid, which under formula I has A = phenyl, $Y^1 = O$, L = 1,3-butadienediyl, $Y^2 =$ a bond, and X^1 and $X^2 = O$, this compound is not a compound of formula I in any of the claims 1, 22, or 102. Claims 1 and 102 require that when L contains zero double bonds, one double bond, or two conjugated double bonds and A is substituted phenyl or unsubstituted aryl, Y^1 is not a bond or CH_2 and Y^2 is not a bond or CH_2 . Similarly, claim 22 requires that when L contains zero double bonds, one double bond, or two conjugated double bonds and A is C_{1-4} alkyl phenyl, C_{1-4} alkoxy phenyl, or unsubstituted aryl, Y^1 is not a bond or CH_2 , and Y^2 is not a bond or CH_2 . In the compound described in Hoorspool, A is unsubstituted aryl (in this case, phenyl), Y^1 is O, L contains two conjugated double bonds (in this case, 1,3-butadienediyl), and Y^2 is a bond. However, claims 1, 22 and 102 exclude compounds in which L contains two conjugated double bonds, A is unsubstituted aryl, and Y^2 is a bond. Thus, Hoorspool does not anticipate claims 1, 22, or 102, or claims that depend therefrom.

Amended claim 80 recites that L is a straight C_{5-12} chain. In the compound disclosed in Hoorspool, 5-phenoxy-2,4-pentadienoic acid, L is 1,3-butadienediyl, which is a C_4 group. Thus, Hoorspool does not disclose the pharmaceutical composition of claim 80.

Moreover, the portion of the reference indicated by the Examiner states that “0.6g of this ester were saponified . . . with 25 ml n-KOH in 50 percent alcohol. After addition of water, the free acid was precipitated by acidification with 10 percent HCl . . . (colorless needles, out of aqueous alcohol).” See Hoorspool Translation, Page 7 lines 14-21. There is no description in Hoorspool that this composition could be administered as a pharmaceutical composition, nor is there any mention of a pharmaceutically acceptable carrier.

For at least these reasons, claims 1, 22, 80 and 102, and claims that depend therefrom, are

not anticipated by Hoorspool. Applicants respectfully request reconsideration and withdrawal of this rejection.

Rejection of claims under 35 U.S.C. §102(b) over Roedig et al.

Claims 1-5, 12, 13, 16, 17, 22, 80-84, 87-94, 96, 97, and 99-103 have been rejected under 35 U.S.C. 102(b) as being anticipated by compounds of Roedig et al ("Roedig"). See page 4 of the Office Action. Claims 1, 22, 80, 91, 102, and 103 are independent.

Roedig disclosed 5-substituted-2,3,4,5-tetrachloro-2,4-pentadienoic acids **9** in which R is cyclohexyl, naphthyl, or substituted phenyl (see page 631 of Roedig) which are not the compounds of claims 1, 22, or 102. The compounds **9** disclosed in Roedig, under formula I, have A = cyclohexyl, naphthyl, or substituted phenyl, Y¹ = a bond, L = tetrachlorobutandiendiyl (C₄ having two conjugated double bonds), Y² = a bond, and X¹ and X² = O. Claims 1 and 102 each requires that when L contains two conjugated double bonds and A is substituted phenyl or unsubstituted aryl, Y¹ is not a bond or CH₂ and Y² is not a bond or CH₂. Similarly, claim 22 requires that when L contains two conjugated double bonds and A is unsubstituted aryl, Y¹ is not a bond or CH₂, and Y² is not a bond or CH₂. In the compounds described in Roedig, A is unsubstituted aryl or substituted phenyl, L contains two conjugated double bonds, and Y² is a bond, which is excluded from independent claims 1, 22 and 102. Thus, Roedig does not anticipate claims 1, 22, or 102, or claims that depend therefrom.

Amended claim 80 covers a compound of formula I in which A is a cyclic moiety and L is a straight C₅₋₁₂ hydrocarbon chain. As noted above, Roedig discloses compounds in which L is C₄ having two conjugated double bonds, which is not covered claim 80. Thus, Roedig does not anticipate claim 80.

Amended claims 91 and 103 covers a compound of formula I in which L substituted with C₂₋₄ alkenyl, C₂₋₄ alkynyl, C₁₋₄ alkoxy, amino, nitro, cyano, C₃₋₅ cycloalkyl, 3-5 membered heterocycloalkyl, monocyclic aryl, 5-6 membered heteroaryl, C₁₋₄ alkylcarbonyloxy, C₁₋₄ alkyloxycarbonyl, C₁₋₄ alkylcarbonyl, or formyl. The compounds in Roedig have chloro substituted L groups. Thus, Roedig does not anticipate claims 91 or 103.

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Thus, claims 1, 22, 80, 91, 102, and 103, and claims that depend therefrom, not anticipated by Roedig. Applicants respectfully request reconsideration and withdrawal of this rejection.

CONCLUSION

Applicants believe that the claims are in condition for allowance.

Should any fees be required by the present Amendment, the Commissioner is hereby authorized to charge Deposit Account **19-4293**.

If, for any reason, a telephonic conference with the Applicant would be helpful in expediting prosecution of the instant application, the Examiner is invited to call Applicants' Attorney at the telephone number provided below.

Respectfully submitted,

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